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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/624,524

07/23/2003

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10/16/2007

EXAMINER

TRAN, NHAN T

ART UNIT

PAPER NUMBER

2622

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/624,524	LEE ET AL.	
	Examiner	Art Unit	
	Nhan T. Tran	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-28 and 30-34 is/are rejected.
- 7) ☒ Claim(s) 5 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/28/2007 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-4, 6-28, 30-34 have been considered but are moot in view of the new ground of rejection. *Note that the new ground of rejection is based on broadest reasonable interpretation of the claimed invention as set forth below.*

### ***Claim Objections***

3. Claim 1 is objected to because of the recitation of "wherein in the closed state the folder covers at least one of the plurality of buttons" which should be corrected to read as – wherein, in the closed state, the folder covers at least one of the plurality of buttons --.

Claim 7 is objected to because of the recitation of "the front surface of a protrusion" which should be corrected to read as -- a front surface of a protrusion --.

Claim 8 is objected to because of the recitation of "wherein in the closed state the second terminal portion covers at least some of the plurality of buttons" which should be corrected to read as -- wherein, in the closed state, the second terminal portion covers at least some of the plurality of buttons --.

Claim 26 is objected to because of the recitation of "wherein in the closed position, the second body covers at least one of the keys on the first surface of the first body" which should be corrected to read as -- wherein, in the closed position, the second body covers at least one of the keys on the first surface of the first body --.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6, 8-11, 14-28, 30-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Wada (US 6,965,413).

Regarding claim 1, a mobile terminal with a camera (camera phone shown in Figs. 2-5, see abstract), comprising:

a main body (2) having a plurality of buttons (4, 5) formed on a front surface (see Fig. 2C);

a folder (3) foldably connected to the main body and having a display (6) formed thereon, the folder being foldably connected to allow an open state (Figs. 2A-2C) and a closed state (Fig. 3B), and wherein in the closed state the folder covers at least one of the plurality of buttons (Fig. 3B);

a camera module (11) mounted within a rear surface of the main body (2) and at an upper portion of the rear surface of the main body for imaging a target (see Fig. 2A and col. 2, line 51 – col. 3, line 16), wherein the camera module is mounted such that a viewing direction of the display and an imaging direction of the camera module are substantially parallel when the folder is in the opened state (see the illustration of Fig. 2B on next page for the possible viewing direction V and the imaging direction I that are parallel with each other. Note that the viewing direction is not always perpendicular to the display 6, it can be at a plurality of different angles depending on the user's position).

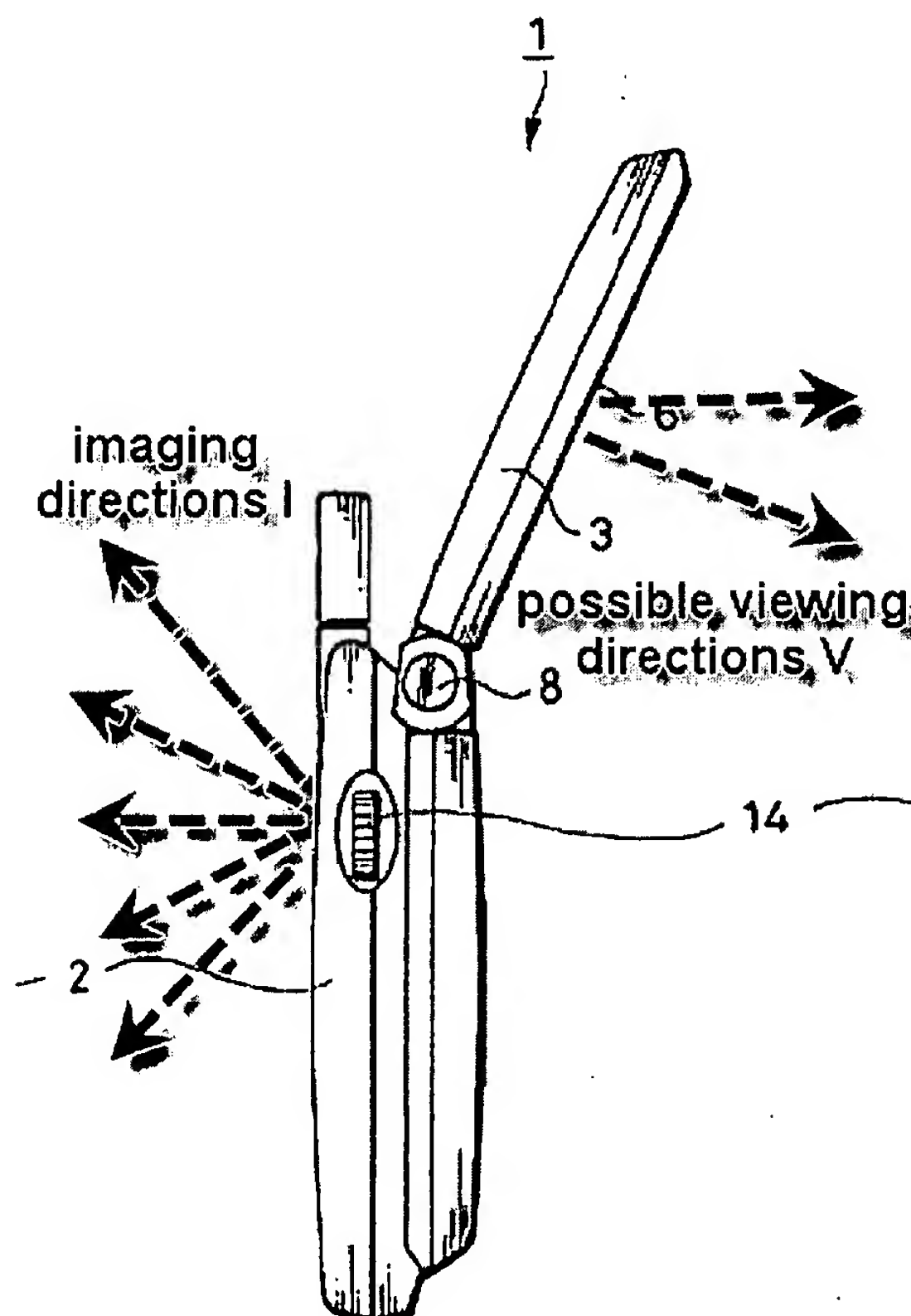


Fig. 2B in Wada is used to illustrate the viewing directions and imaging directions of the camera phone.

Regarding claim 2, as seen in the illustration of Fig, 2B above in claim 1, the disclosure of Wada also encompasses that the camera module is mounted at a predetermined angle such that the imaging direction (directions I which include a plurality of incident light directions by virtue of the field of view of the camera) forms an angle of approximately 90 degrees with respect to a rear surface of the folder when the folder is in the opened state.

Regarding claim 3, as seen in the illustration of Fig. 2B above in claim 1, the disclosure of Wada also encompasses that the camera module is mounted such that there is formed an angle of  $30^\circ$  between the imaging direction and a normal to the rear surface of the main body.

Regarding claim 4, Wada also discloses a protrusion (portion 8 shown in Figs. 2A-3C) with a predetermined angle is formed at the upper portion of the rear surface of the main body (2), wherein the protrusion has a front surface (the surface faces the imaging direction) that is positioned so that it is **substantially** level with a rear surface of the folder (3) when the folder is in the opened state (see Fig. 2B).

Regarding claim 6, it is also seen in Fig. 2A of Wada that the camera module (11) is mounted at the protrusion so that the imaging direction of the camera makes an angle of approximately 90 degrees with respect to the front surface of the protrusion (please note imaging direction as discussed in claim 1, which is perpendicular to the front surface of the rear surface as well as the front surface of the protrusion 8).

Regarding claim 8, Wada discloses a subscriber unit (camera phone, wherein the phone is subscribed with a phone number; see col. 2, lines 51-61), comprising:

a first terminal portion (2) including a plurality of buttons (4, 5 shown in Fig. 2C);

a second terminal portion (3) foldably connected along a folding axis to the first terminal portion to allow an open configuration and a closed configuration (Figs. 2A-3B), wherein in the closed configuration the second terminal portion covers at least some of the plurality of buttons (Fig. 3B);

a display (6) on the second terminal portion; and

a camera (11) mounted within the first terminal portion (2) such that a display viewing direction is substantially parallel to a camera imaging direction when the second terminal portion is in the open configuration relative to the first terminal position (see col. 2, line 51 – col. 3, line 16 and note the analysis of claim 1 for the imaging direction I and viewing direction V which are parallel with each other).

Regarding claim 9, it is clear in Wada that the camera (11) is mounted at an upper portion of the first terminal portion (2). See Fig. 2A.

Regarding claim 10, Wada also discloses that a section (rear surface) of the first terminal portion (2) in which the camera is mounted is wider than other sections (side surfaces) of the first terminal portion (see Figs. 2A & 2B).

Regarding claim 11, this claim is also met by the analysis of claim 4.

Regarding claim 14, Wada clearly discloses that the display (6) comprises a flat panel display (Figs. 2A-3C).



Regarding claim 15, as disclosed by Wada in col. 3, lines 9-15, the flat panel display is a liquid crystal display (LCD).

Regarding claim 16, as seen in the illustration of Fig. 2B above in claim 1, the disclosure of Wada also encompasses that the display viewing direction comprises a direction that is substantially orthogonal to a viewing surface of the display.

Regarding claim 17, as seen in the illustration of Fig. 2B above in claim 1, the disclosure of Wada also encompasses that the camera imaging direction comprises a direction that is substantially parallel to a bisector of a field of view of the camera.

Regarding claim 18, Wada further discloses that at least a section of the second terminal portion is rotatable along an axis of rotation that is orthogonal to the folding axis (see Fig. 3C & 4 and col. 3, line 16-54).

Regarding claim 19, it is clear in Wada that the rotatable section (Fig. 4) of the second terminal portion is rotatable by at least 180 degrees (col. 3, lines 16-54):

Regarding claim 20, Wada further discloses that the second terminal portion (3) has a first closed configuration in which the rotatable section of the second terminal portion is positioned so that the display is facing a front surface of the first terminal

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portion (Fig. 3B), and a second closed configuration in which the rotatable section of the second terminal portion is rotated by substantially 180 degrees with respect to its position in the first closed configuration (Fig. 3A). See col. 3, lines 9-16, 48-60.

Regarding claim 21, also disclosed by Wada in col. 2, lines 62 – col. 3, line 8 and col. 5, line 4-20, a camera control interface (jog dial 14) positioned so that it can be accessed when the second terminal portion is in the first or second closed configurations.

Regarding claim 22, also disclosed by Wada in col. 2, lines 62 – col. 3, line 8 and col. 5, line 4-20, the camera control interface (jog dial 14) is positioned at a side surface of the first terminal portion.

Regarding claim 23, Wada further discloses that the camera comprises a still camera (taking a still picture of an object; see col. 3, lines 5-8 and col. 4, lines 43-49).

Regarding claim 24, Wada further discloses that the camera comprises a video camera (capturing and displaying live-view video images for monitoring as described in col. 4, lines 38-49).

Regarding claim 25, it is clear in Wada that the rear surface is opposite from the front surface (Figs. 2A—2C).

Regarding claim 26, Wada discloses a mobile terminal (a camera phone shown Figs. 2A-3C and abstract) comprising:

a first body (2) having a plurality of keys (4, 5) on a first surface of the first body (Fig. 2C);

a second body (3) coupled to the first body and moveable between an opened position (Figs. 2A-2C) and a closed position (Figs. 3A & 3B), the second body having a display (6), wherein in the closed position (Fig. 3B), the second body covers at least one of the keys on the first surface of the first body; and

a camera module (11) within a second surface of the first body opposite from the first surface, wherein when the second body is in the opened position relative to the first body, a viewing direction of the display is substantially parallel with an imaging direction of the camera module (see col. 2, line 51 – col. 3, line 16 and note the analysis of claim 1 for the imaging direction I and viewing direction V which are parallel with each other).

Regarding claims 27, 28 & 30, these claims are also met by the analyses of claim 2, 4 & 6, respectively.

Regarding claims 31 & 32, these claims are also met by the analyses of claims 20 & 21, respectively.

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Regarding claim 33, Wada clearly discloses that the camera maintains a fixed position relative to the main body (see Fig. 2A).

Regarding claim 34, also disclosed by Wada in Figs. 2A-4, the mobile terminal further comprises a hinge connection part (Fig. 4) coupled to the main body (2) and to the folder (3), the camera being mounted within the main body such that the camera is not provided in the hinge connection part.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 12 & 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wada (US 6,965,413) in view of Ban et al. (US 7,076,271).

Regarding claim 7, Although Wada discloses a protrusion (a rear portion of the main body is considered as a protrusion since it protrudes toward imaging direction from the keypad portion in view of Fig. 2B, also note that this protrusion is different from the protrusion in claim 4), Wada does not teach a mirror is mounted at [the] front surface of the protrusion for reflecting a user when the user images himself/herself.

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However, as taught by Ban in Fig. 2B, a camera phone includes a mirror (10) mounted on the same surface with a camera module (9) so as to enable the user to see himself/herself during self-photographing (see Ban, col. 3, lines 32-51).

Therefore, it would have been obvious to one of ordinary skill in the art to provide a mirror on the front surface of the protrusion (the rear portion of the main body) in Wada where the camera module is located in view of teaching of Ban so as to enable the user to see himself/herself during self-photographing to obtain accurate framing.

Regarding claim 12, this claim is also met by the analysis of claim 7.

Regarding claim 13, Wada in view of Ban also discloses the reflecting surface comprises a mirror (mirror 10 in Ban) mounted adjacent to the camera (9) such that a normal to a surface of the mirror is substantially parallel to the camera imaging direction.

### ***Allowable Subject Matter***

5. Claims 5 & 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form *including all of the limitations of the base claim and any intervening claims*.

The following is a statement of reasons for the indication of allowable subject matter:

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Regarding claim 5, the prior art of record fails to teach or fairly suggest the limitations of claim 5, in combination with claims 4 & 1, that includes **“the protrusion is formed such that the front surface of the protrusion is at an angle of approximately 30° to the rear surface of the main body.”**

Regarding claim 29, the prior art of record fails to teach or fairly suggest the limitations of claim 29, in combination with claims 28 & 26, that includes **“the protrusion is formed such that the first surface of the protrusion is at an angle of approximately 30° to the second surface of the first body.”**

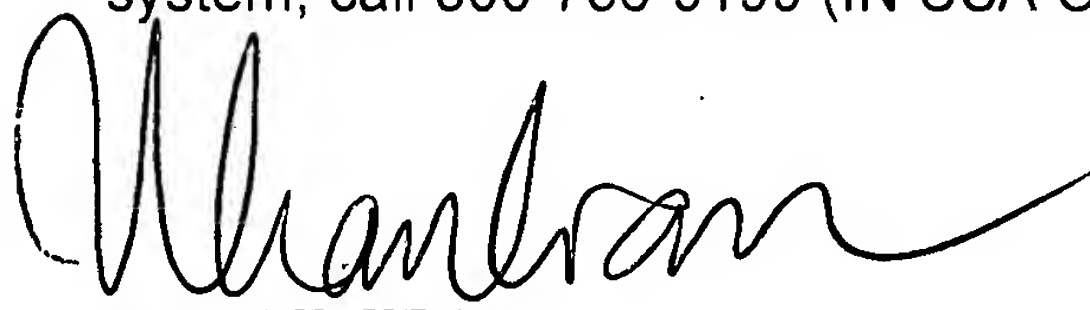
### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Nhan Tran', with a stylized, flowing script.

NHAN T. TRAN  
Patent Examiner